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Utah Watershed Review

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Bacteria Found in Private Wells in Milford Flats, Committee Formed

By Jack Wilbur
Editor, Utah Watershed Review

Milford Flats residents are boiling their water and brimming with concern after fecal coliform bacteria was found recently in more than 20 private wells in the rich hay producing area west of Beaver.

The contamination was discovered in late November in the agricultural/residential area south of Milford and a few miles north of Circle Four Farms.

The massive hog producing operation has been pointed to by some residents as a possible source of contamination. But state officials do not believe that well water contamination originates at Circle Four. Testing in 88 monitoring wells around the 44 sewages lagoons at the hog farm have shown no bacteria, and geological studies suggest it would take "decades" for the water to travel from the farm to Milford Flats according to experts at the Utah Division of Water Quality (DWQ).

After evidence of contamination showed up in the area the state formed a special technical committee of state, private and county interests to determine the source of the contamination.

Environmental scientists from the

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Local Task Force Looks for Answers to Bacteria Problem

Meeting focuses on sources, solutions

By Jack Wilbur
Editor, Utah Watershed Reivew

A task force of Milford Flats residents and government officials met in Minersville in mid-December to determine the source of bacteria contamination found in several ground water wells here recently.

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CAFO Strategy Released

The second joint USDA/EPA strategy designed to reduce nonpoint source water pollution from animal feeding operations (AFOs) has been released. Public comment on the revised strategy is being accepted until January 20, 1999.

The cornerstone of the strategy is a national expectation that all animal feeding operations (regardless of the size of the operation) to develop a comprehensive nutrient management plan (CNMP). These plans will be site-specific and will focus on:

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Only Concentrated Animal Feeding Operations by the strategy would be required to have a nutrient management plan. All operations with animals will be encouraged to write plans and make improvements

UACD Turns 50

Organization has worked hard for success

By Jack Wilbur
Editor, Utah Watershed Reivew

For the Utah Association of Conservation Districts (UACD) 1998 has been a banner year. The association has been celebrating its 50th anniversary and the officially designated Year of the Farmer. At the same time, funding from the state legislature and other sources is at an all-time high and the association and its districts have more employees on the payroll than at any time prior.

But times haven't always been as rosy for the districts, said David Pace, Zone 4 coordinator, Richfield. "What you are seeing now is the fruition of a lot of hard work." Pace, who has been with UACD since 1983 was the only zone coordinator for many years. Times were much leaner then, he remarked. "UACD has become a 'real' organization (an organization with a paid staff to coordinate and carry out the responsibilities of the elected leaders) and a strong voice for grassroots conservation in Utah.

Dean Maxwell became the second full-time zone coordinator in 1989, after retiring from the USDA Soil Conservation Service (SCS – now known as Natural Resource Conservation Service, NRCS). While Maxwell was the district conservationist for SCS at the Midvale, Utah, field office, he and his staff did much of the work he now does as a UACD zone coordinator.

"My work with the districts made me aware that one of the main objectives was education," Maxwell said.

An Evolution of Funding and Support

In the past two decades support of UACD has shifted from mostly federal to mostly state funds and services.

NRCS (formerly SCS) and the conservation districts have worked closely together from the first days of districts in Utah. SCS technicians helped farmers and ranchers write conservation plans and implement improvements in the areas of soil conservation, water conservation and water quality. But over time federal budgets have dwindled and technical support for conservation districts has been spread thin.

The shift to more state involvement began in the early 1980s with the inception of the state Agricultural Resource Development Loan (ARDL) program. Along with the statewide program leaders employed at the Utah Department of Agriculture and Food (UDAF), the legislature charged local districts to help coordinate and administer the loans at the local level. It was at that point that the zone coordinator program started.

During the 1990s, as federal staffing and support has further diminished, the amount of state general funds appropriated to the districts has increased. UACD has been able to hire additional zone coordinators, statewide information and education coordinators, and technical support staff for local districts.

Local Supervisors and State Elected Leaders

The local supervisors have always been the backbone of UACD, said Gordon Younker, executive director, UACD. "We have really relied on our elected leaders. Bill Rigby has been an effective spokesman," he added. "Locally we have had 190 supervisors who have consistently done a good job."

The result of the years of hard work is becoming evident, Younker expressed. "The visibility and credibility of the role of the districts has been enhanced. As a

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CAFO Strategy continued

- Herd management
- Manure handling
- Land management
- Record Keeping
- Technical assistance

Voluntary for most operations

Concentrated Animal Feeding Operations (CAFOs) are required to obtain pollution discharge permits and are required under the strategy to develop a CNMP and implement best management practices (BMPs) to reduce discharge from their operation.

However, most of the animal feeding operations in Utah do not meet the standards of a CAFO and therefore will be given the opportunity to follow the strategy voluntarily.

The voluntary approach will focus on:

- Locally led conservation
- Education
- Partnerships
- Technical assistance
- Funding sources to help in implementing BMPs

Regulatory Program

Those operations determined to be CAFOs will be required to enact the CNMP and practices to reduce pollution. The guidelines will help operators determine if they fit into the regulatory program.

- More than 1,000 animal units
- More than 300 animal units with a manmade discharge or runoff directly to a canal or stream
- Less than 300 animal units but determined to be a significant source of pollution

According to the strategy, an operation is not considered a CAFO if the only discharge to a water body occurs from a storm event that is considered a 25 year, 24 hour storm as determined by Natural Resources Conservation Service.

The timeline for implementing the various part of the strategy are as follows:

- CAFO permit guidance January 1999
- State permitting Spring 1999
- Revise CAFO regulations December 2001
- Large CAFO implement CNMP 2003
- Small CAFO implement CNMP 2005
- All AFOs implement CNMP 2008

Utah Committee Considers State CAFO Strategy

The Utah committee formed to adopt a Utah-specific version of the national animal feeding operation strategy met recently to review the national draft strategy and work on the Utah plan.

"We're getting to the point in this committee where we have to do something," announce Don Ostler, director, Utah Division of Water Quality. "This is an issue that's not going away."

Ostler started the meeting by reviewing the national strategy. The discussion then turned to how it impacts Utah. It was suggested that, according to the official Utah Agricultural Statistics report published each year by USDA and the Utah Department of Agriculture and Food, there are about 9,000 farm or ranches in Utah with at least some livestock. The question that is yet to be determined is how many of those operations are considered CAFOs. It may be as few as 5 percent or as many 50 percent.

One issue that concerned many of the agency and industry representatives on the committee how the process of designating operations as CAFOs would work and whether there would be time to fix problems before enforcement action started. "What will stop the clock on enforcement action?" asked C. Booth Wallentine, executive director, Utah Farm Bureau Federation. "There should be a designated period of time to fix problems before enforcement actions take place.

Utah Approach

The Utah committee looked at several elements to be included in the Utah strategy.

First among them is information and education. The committee talked about several elements they would like included in an information and education plan. They include:

- Targeting all agricultural interests
- Determining which operations will be affected
- Determining what each operation will need to do
- Providing more information on the regulations
- Providing information and the 303 (d) list and priority watersheds
- Using UACD to help educate producers
- Highlight good examples

The committee suggested setting priorities using the 303 (d) list and local steering committee.

After determining the priority areas of the state, the inventory process should begin to determine which operations fall into the category of CAFO. It is believed that there are as few as three operations in the state that have more than 1,000 animal units. Those operations already have pollution discharge permits with the state and may already have nutrient management plans. About 40 operations throughout Utah have between 300 and 1,000 animal units.

The final element of the Utah is compliance. Most of the elements of the compliance plan are dictated in the national plan.

As the review and comment process for the national joint strategy continues, more elements of the Utah strategy will take shape.

Agriculture Commissioner Praises SCDs, Warned of Unfair Trade Policies

In one of his more politically charged and pointed speeches as the state's top agricultural official, Utah Commissioner of Agriculture Cary G. Peterson, urged soil conservation district supervisors recently to work even harder toward conservation policy that preserves agricultural production.

"The time is here, the time is now!" Peterson proclaimed during the 50th Anniversary Utah Association of Conservation Districts (UADC) Convention in St. George, Utah. "If not you, who? If not now, when?"

Peterson's 15 minute address focussed mainly on international agricultural tradepolicies and its relationship to declining domestic farm markets, and preserving prime agricultual land.

He began with a pat on the back to UACD for the positive publicity generated by the Year of the Farmer campaign. In shopping-list fashion he mentioned the radio advertising campaign; the kick-off event in Davis County; the official song, Cousin to the Cowboy, written and performed by local farmer Steve Flint; the Future Farmers of America event and tour at Charlie Black's farm in Davis County; and the float that appeared in Pioneer Days celebrations.

The tone of his remarks turned more serious and somber as he remarked that 1998 has been a depressed year for most farm markets in Utah, nationally, and internationally.

"We produce 25 percent more food in the U.S. than we consume," Peterson acknowledged. "As I observe international trade we have a fast track in and an extremely slow track out." He said that many low food prices in this country and protectionist trade policies of many countires will put many smaller farm and ranch operations at great risk in the coming months.

"Before the stock market crash of 1929 and subsequent world econmonic depression, there were two years of extremely depressed farm markets," Peterson noted. "I sincerely hope that we don't repeat that same scenerio."

Utah Watershed Review

Editor.....Jack Wilbur

Editorial Review

Cary G. Peterson, Utah Commissioner of Agriculture and Food,
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If you would like to request an additional copy, make a comment or suggest a story or watershed focus idea, please call **Jack Wilbur** (801) 538-7098. Or write:

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Milford Continued

division started a second round of water sampling in the area in early December. The first samples, conducted by the wells' owners, found coliform bacteria in 23 of 29 wells tested. The state tested wells were all culinary wells. Some of the tests originally performed by a private lab were on irrigation wells.

Preliminary results of the recent state tests show bacteria found in the water belonging to the coliform, non-coliform, and fecal strep families of bacteria in the water, said Dennis Frederick, groundwater specialist for the DWQ. The state is also testing the water for nitrates, which can be harmful to some people in high amounts.

Unified Watershed Assessments Received by EPA

The plan calls on states and tribes to work in cooperation with federal, interstate, and local agencies, watershed-based organizations, and the public to identify watersheds most in need of restoration action strageies. In June, EPA, USDA and other federal agencies developed a framework to assist states and tribes in preparing unified watershed assessments (UWAs), the first step in identifying watersheds in need of action. States were encouraged to draw from existing water quality data and piece together what this information says about overall watershed conditions.

After receiving feedback on drafts from an interagency workgroup and the public, 56 states and territories, the District of Columbia, and 13 tribes submitted final UWAs in October. The next step will be to map the results of the UWAs. A large part of the new resources proposed by the President's Fiscal Year 1999 budget will be used to implement the resulting restoration strategies. For more information, visit EPAs website at www.epa.gov/owowwtr1/cleanwater/uwafinal/uwa.html.

Meeting Continued

Data from the most recent round of state tests of local wells was released. Seventeen of 19 wells tested by the Utah Division of Water Quality (DWQ) on December 10th and 11th tested positive for coliform. To this point no E-coli has been detected. Further testing will continue. The first tests performed by DWQ found bacteria in 11 of 22 wells. The second samples were given a more sensitive test.

"I would encourage everybody in this room who has a well to test your wells," said Joey Leko, Milford Flats resident and co-chair of the newly formed task force. "Don't rely on the state to do your testing for you."

Several possible sources of contamination were discussed by the committee. The following possible sources were not ranked or prioritized.

Intentional recharge of the ground water from the Hay Springs diversion of the Beaver River between Circle Four Farms and the Milford Flats area is one possible source. The county, as part of its flood control program, has diverted Beaver River water to pits that have been dug down several feet below the surface. The water in the pits then seeps into the ground to recharge the aquifer. Because the pits are below top soil, recharge is faster. Bacteria contamination could also occur faster.

Well construction is another possible source. Are contaminated wells properly capped and grouted? How deep are the perforations? How old are the wells?

Leaking septic tanks will be looked at as a possible source.

Abandoned wells were suggested as a possible source of bacteria.

Circle Four Farms, the large hog operation about two miles south of the nearest polluted well was listed as a possible source. Some local residents have pointed fingers at Circle Four from the beginning.

Smaller livestock operations near wellheads could be a source of the problem, especially if the well was poorly constructed.

One comment that concerned some residents came from Dennis Frederick, DWQ who astated that a 1974 water resources study of the Milford valley showed some areas of the valley where ground water flows at a relatively fast pace, perhaps as fast as 200 feet a day. However, Frederick urged that the area beneath the hog farm was not a fast moving area. Some people at the meeting pointed to previous statements from division employees that have maintained that the ground water in the valley moves much slower than 200 feet a day.

"What is the real story?" asked True Ott, a representative of Citizens for Responsible and Sustainable Agriculture. "What I'm hearing tonight is that there are no answers."

While Frederick admits that there are no simple or clear answers to this point, he maintains that the flows rates below Circle Four Farms does not make them the most logical source of the problem.

One problem the committee will have in generating answers and actions is money. So far EPA Section 319 funds in the amount of $48,000 have been set aside to study the problem in Milford Flats. Those federal funds will have to be matched by $32,000 in state or local money, for a total of $80,000. But even at that amount, DWQ officials worry there won't be enough money to complete a thorough study of the problem. Once causes and solutions are determined, money will need to be available for restoration and remediation work.

Concerns about the health risks associated with the bacteria found in the water were addressed by Susan Mottice, Ph.D., director of microbiology for the Utah Department of Health. She gave the audience a basic lesson in bacteria and pathogens.

"It is completely normal for drinking water to contain bacteria," Mottice said. "All drinking water contains bacteria." She said, however, that it is not normal for drinking water to contain fecal coliforms or fecal strep. "These bacteria indicate that the water may be contaminated with fecal material.

Coliform in the water does not necessarily mean that there are frank pathogens, or disease-causing organisms in the water. It merely means that pathogens may be present. "To date, no frank pathogens have been found in any of the wells," Mottice maintained.

Private and state testing of the wells in the Milford Flats area will continue and the task force will meet again in Milford the last week of January. In the meantime, local residents have been urged to continue to boil their water and to disinfect their wells.

This is a typical irrigation well in the Milford Flats area. Both irrigation and culinary wells have tested positive for bacteria.

Along with external sources that could becausing problems, state officials are interested at looking at what is going on in the areas immediately surrounding each well. Could poor well constructionbe allowing bacteria to get into the ground water? Are the livestock near the wells possibly causing the problem?

TMDL Brochure Now Available

"Total Maximum Daily Loads: Understanding the TMDL Process" is a new brochure that is now available from the Utah Department of Agriculture and Food.

EPA sponsored the project that highlights nonpoint source TMDL success stories from three Western states. The brochure also attempts to make understandable the TMDL process.

The TMDL process is explained in simple terms. The publication discusses requirements for TMDLs in the Clean Water Act, defines TMDLs and covers three representative case examples.

Firesteel Creek in South Dakota, Deep Creek in Montana and Chalk Creek in Utah are spotlighted as positive examples of locally led conversation and watershed restoration programs that make good TMDLs.

To receive one or multiple copies of the brochure, please contact Jack Wilbur at the Utah Department of Agriculture and Food at the address listed below. You may also reach Jack via the telephone at 801 538-7098, or at E-mail address: agmain.jwilbur@email.state.ut.us

The cover page of the brochure features a photograph taken during the spring in the Chalk Creek watershed near Coalville, Utah. The photo was taken above Huff Creek, a tributary to Chalk Creek. Fencing, vegetation planting, in-stream stabilization and irrigation water management are among the practices that have been used by the Chalk Creek watershed committee.

Send Me a copy of the TMDL Brochure

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SLC, UT 84114-6500

National Association President Addresses UACD

Rice: 'Three L's' are key to future of conservation

By Jennifer Hines
UACD Information Specialist

The future of conservation in Utah, according to Rudy Rice, lies in soil conservation district supervisors' hands.

Rice, president of the National Association of Conservation Districts, brought his message to the Utah Association of Conservation Districts' annual convention Nov. 4-6 in St. George.

The future of conservation, he said, will be determined by "three L's": the locally-led process, legislative initiative and leadership.

Today's conservation districts must go back to the future, he said. Local participation, the root of the conservation movement, is key. But today's participants will not all be farmers and ranchers.

"We have to bring in the urban audience," Rice said. Supervisors who are not comfortable working with these new members, should move over and make room for the future.

Rice challenged district supervisors to direct committee members who nominate new supervisors to find the very best.

"Tell them to go out and only find the best — and not just agricultural friends," he said. "The only way we're going to spread our message around and get buy-in, is to realize the conservation movement is not just agriculture. We used to be, but we're not anymore. It's absolutely critical."

Leadership is key to success. Once strong leaders are identified, he said, get them elected. Then, don't let them forget their mentors — those who have gained experience in the field.

Rudy Rice, president, National Association of Conservation Districts

Utah has done a good job of working with legislators to support the conservation movement, Rice said.

Finally, he said, it's up to district supervisors to "walk the fences" of their districts, ensuring that the district's business is well-managed.

"We're all in it together and we've got to take care of business," Rice said. " I challenge you to be proactive."

UACD Elects New Officers

The Utah Association of Conservation Districts elected new officers at its annual convention Nov. 4-6 in St. George.

Randy Greenhalgh, of Nephi was elected president of the state association. Greenhalgh, Zone 4 director with the Juab Soil Conservation District, has served as vice president of UACD for the last four years. He replaces outgoing President Bill Rigby, who served four years.

Newly elected vice president is Larry Johnson, Zone 1 director, and a member of the Rich Soil Conservation District. The new secretary/treasurer will be appointed by the president.

New UACD Auxiliary officers were elected in November, as well.

June Hicken, former vice president, automatically succeeds as president. Hicken, the wife of Zone 2 Director Claude Hicken, replaces Kathy Wilson as president.

Laura Selman, wife of Fred Selman of the Northern Utah Soil Conservation District, was elected vice president and Janett Call, wife of Jared Call and associate member with the Davis SCD, was elected historian.

Officers serve two-year terms.

UACD News Briefs

Zone directors ratified

UACD members ratified seven zone directors to serve two-year terms on the board of directors. Those ratified are: Arthur Douglas, Zone 1; Ben Thurgood, Zone 2; Claude Hicken, Zone 3; Eugene Jensen, Zone 4; Norm Carroll, Zone 5; Bill Rasmussen, Zone 6; and Robert Barry, Zone 7.

EPA Director Vows to Work with Landowners

By Jennifer Hines
UACD Information Specialist

New federal initiatives to clean up the nation's waterways will be implemented in cooperation with landowners, according to Bill Yellowtail, EPA Region VIII administrator.

"We cannot sustain land and water without considering the people who live on the land," he said.

The EPA recognizes the importance of working cooperatively with landowners, he said. "We understand that feds can't do better what local folks can do."

The Clean Water Action Plan is not a new program, he said, but an acceleration of efforts the conservation districts have done for years.

The proposed federal strategy regarding animal feeding operations does not assume that feedlots are the bad guys, Yellowtail said. The strategy outlines a twofold approach: First to find out if the feedlots cause problems and second, to offer help if necessary.

Yellowtail pointed out several programs that can provide financial assistance, including: Watershed Assistance Grants, 319 program, non-point source pollution information and education program and various others.

The Utah Department of Environmental Quality, along with agricultural organizations, plans to hold training workshops for animal feeding operations throughout the state.

Landowners who are concerned about future federal regulations should take advantage of these opportunities, he said.

"We want to continue to operate on the principal that local people know best," Yellowtail said.

Bill Yellowtail, director, Region VIII, EPA

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result we've gotten some of the money we've needed for the districts to do a good job.

"When I first started working with the districts each supervisor was given $50.00 a year, regardless of what or how much he did," said K.N. "Jake" Jacobson, liaison between the districts and UDAF. Now, he said, there is enough funding to pay district supervisors to travel to and attend important regional and statewide meetings. However, he added that many supervisors still put in a lot of time for which they are not compensated.

Promoting Districts to the Public

In recent years two employees have been hired to help promote districts to the public. Jennifer Hines is a former journalist who has been hired as the public information and media relations specialist for the districts, while Sherrie Einfeldt has been working as the education specialist.

Together they have increased the visibility of the districts significantly.

Hines has worked on newsletters, conferences, tours and videos to get the word out. At the same time, Einfeldt has spent much of her time during 1998 working on the highly successful Year of the Farmer campaign. Both women were recognized at the recent UACD annual convention for their hard work and dedication.

A Look to the Future

"The state is looking for local leadership. I think that the SCDs could be those local leaders," Younker said.

Other issues he considers important in UACD's future include nonpoint source water pollution and working with local leaders and planning boards to develop and promote the most practical approaches for handling growth. "Districts can help enact ordinances that will encourage cluster development. There's a huge opportunity to help provide technical assistance to local governments to identify prime open space.

Education will continue to be another important goal for districts as we move into a new decade and century, said Maxwell.

Finally, Pace suggested that the most important job of the paid staff of UACD will continue to be to have the capacity to put into practice the wealth of knowledge from the 190 locally elected district supervisors.

Where We Were and Where We are Going

Former UACD president reflects on soil conservation in Utah: yesterday, today and tomorrow

By Bill Rigby
Former UACD President

The word conservation can carry many meanings. To some conservation is preservation of something. To others, it brings up images of wildlife roaming freely. To me, conservation mean to use something wisely, to take care of it so that we may use it longer, and if at all possible enhance it.

Looking back to the 1930s and 40s when we witnessed our natural resources being neglected and taken for granted, we realize how fragile our resources are. We now realize the need for all of us to be good stewards of these resources.

Most of the work back then was done by horses and it took a long time to level land and make it more productive. Tractors have replaces the horse and we are able to quickly prepare large amounts of ground to plant and water.

Gone are the days of slip fresno scrapers to fill gullies and level the land for better use of water resources.

Better management of farms and ranches with new methods of land leveling and irrigation have helped us prevent the recurrence of the dust bowl days of the 1930s. Better farming and conservation practices have also helped prevent large-scale flooding that was common many years ago.

Utah had severe flooding along the Wasatch Front from Brigham City on the north to Nephi on the south. Farmers, ranchers and urban people were very concerned about erosion and desertification. They knew that they had to come up with some answers before much of the prime farm land had eroded away.

My father was one of those whose farm was ruined by flooding. He became very interested and active in conservation work to restore and enhance the watershed above our farm and house. It was his terraced orchard that became a model of how to terrace the mountain. The Davis County watershed is world famous. People have come from all over to see it and use the same principles in their own areas.

This is also when I became involved in conservation. Because it was out farm and house at stake.

The midwest was not the only area hit by a dust bowl. Grantsville area had a severe dust problem, and the farmers and ranchers of that area had to change their practices. New methods of farming were introduced to relieve the problem.

So, to all of us, conservation means to save the resource and enhance it. If we use our natural resources wisely we can use themover and over again.

We can not wear out water but we can pollute it. We can not totally destroy soil but we can pollute it. We can also pollute our air supply. These resources are the foundation of our livelihood. We need healthy natural resources to support growing the food and fiber we need to survive.

It is with pleasure that we can look at what we have accomplished during the last 70 years of natural resource conservation. Beautiful farms and ranches now make up the landscape. We produce more food and fiber on the land. We use the same amount of water to irrigate more many more acres.

Because of new methods of irrigation and the lining and piping of irrigation ditches have helped fewer farmers feed more people. As populations continue to increase, more and more pressure is put on agriculture to increase production. This, in turn puts pressure on the soil and water. We must all become better stewards of the land. Conservation district supervisors and employees must continue to lead the way in educating the public about how fragile our natural resources are and what we can all do to conserve soil and preserve water quality.

Conservation districts have a great history of doing the job of conservation with real success. Utah's 38 soil conservation districts each have five elected supervisors. Most of the supervisors are farmers or ranchers who know how to care for and enhance the resources. Conserving our resources is part of what keeps them in business.

What do I see for the future? It is with hope that I view our future. Without hope we would all be frustrated. The hope I speak of is the conservation districts and their dedication to service and trust. As we move into the next decade and millennium I see soil conservation districts leading the way in the areas of responsible growth, agricultural land preservation, and the education of our young people in the areas of agricultural production and natural resource conservation. I also see our districts leading the way in the important and volatile arena of water quality. Decisions will be made in the next few years that will affect Utah farmers and ranchers for decades to come. I feel confident that our supervisors and paid staff will help our state's leaders make responsible, informed choices.

Service, trust and hope. Let's go for it!

'Dirt Tour' Trains Volunteers to Spread Soil Conservation Message

By Jennifer Hines
UACD Information Specialist

Over 40 volunteers dug deep into the subject of soils at the "Dirt Tour" training workshop held Nov. 4 at the Utah Association of Conservation Districts annual convention in St. George.

The "Dirt Tour" workshop, sponsored by UACD Auxiliary, was a training session devoted to teaching volunteers the basics of soil science. Participants were provided with a plastic tub containing two curriculums: the recently released "Dirt: Secrets in the Soil" and the "Topsoil Tour Kit," along with soil samples and educational visual aids.

Workshop organizers said their goal was to provide a "Dirt Tour" tub and training to at least one volunteer from every soil conservation district in the state. The "Dirt Tour" was funded by UACD and initiated by the association's education committee.

Debra Spielmaker, Utah Agriculture in the Classroom project coordinator, spearheaded the "Dirt Tour" and provided the hands-on training at the workshop.

Participant June Hicken said the workshop gave volunteers the tools they need to carry the conservation message into the classroom.

"Because many are not professional teachers, they don't know what to teach. This gives people specific topics, wording and lessons, so that anybody can go do it."

Hicken said the soil lesson plans and training are a good example of Utah's agricultural interests — such as the soil conservation districts, Utah Farm Bureau, Future Farmers of America and Utah State University Extension — working together.

"Dirt Tour" participants will now take their newfound knowledge into the classrooms, providing additional resources to teachers.

UACD Approves New Resolutions

UACD members passed six, of seven proposed, new resolutions at the annual convention in November. In addition, 13 sunset resolutions were considered, with five retired and eight re-adopted.

These resolutions set policy for the state association. All current resolutions are being compiled into a publication, "UACD Policy Positions," to be distributed to all soil conservation district supervisors.

For more information or to receive a copy, call the UACD office, (435) 753-6029.

Ronald Norris, with Grantsville Soil Conservation District, takes a stab at identifying the different textures of soil at the 'Dirt Tour' training workshop in November.

1999 NPS Conference Changes Format--Again

Theme emphasizes "hands-on" water quality experiences in the field

Ogden, Utah (Ogden Marriott)
August 3-5, 1999

Every few years it seems that the annual Utah Nonpoint Source Pollution Water Quality conference changes its format--at least slightly. In that spirit, another change is on its way for 1999.

Hands-on water quality experiences and training will be emphsized at the annual event to be held this time in Ogden, Utah.

Each day participants will go into the field. Three areas of training will be offered: in-stream water quality analysis, concentrated animal feeding and nutrient management, and the impacts of wildlife on water quality.

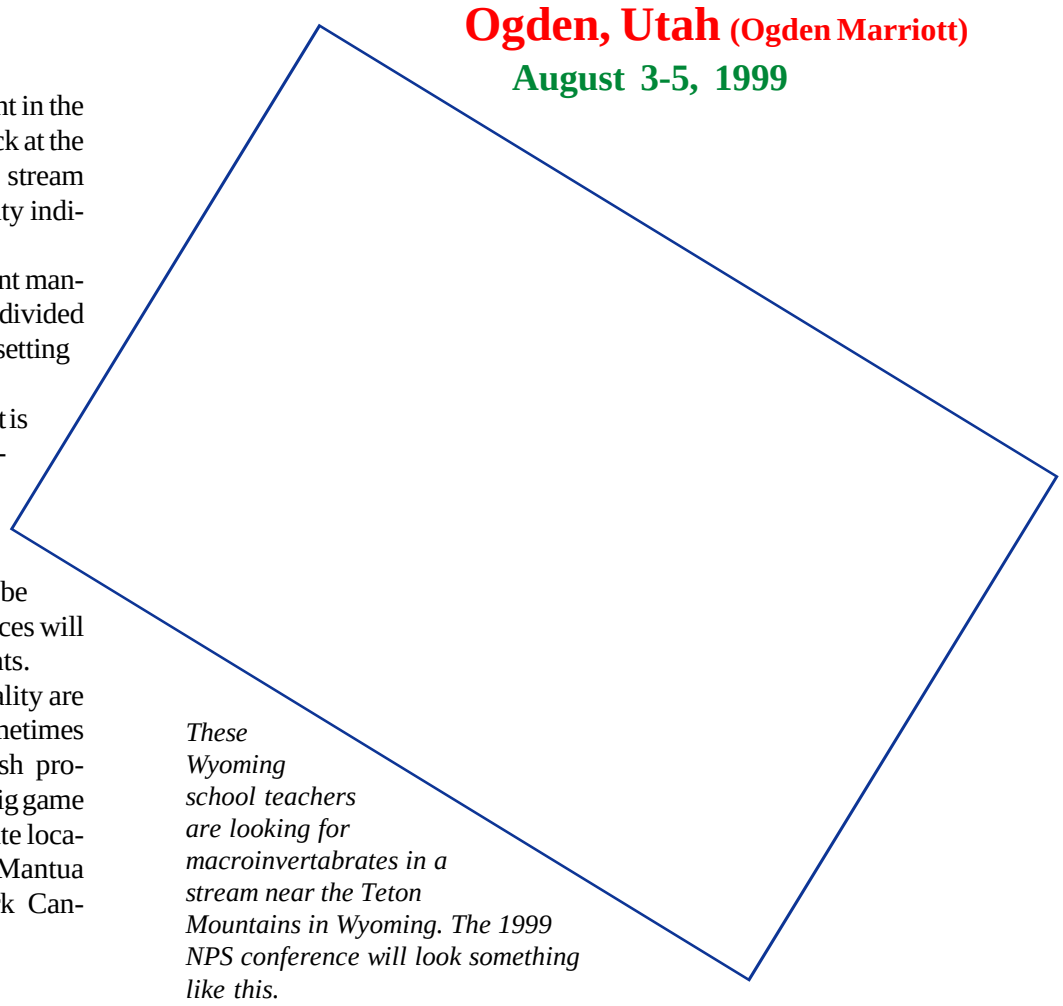
The water analysis section will involve physical, chemical and biological assessment of a stream's health. Physical analysis is done by measuring the width and depth of the stream and the velocity of the water. Participants will take a water sample out of the stream and analyze it for PH level, dissolved oxygen level and phosphorus. Nitrate and out tests may also be conducted. The biological assessment will be performed in-stream using kick nets to catch macroinvertabrate bugs. May of these insects including may flies and stone flies are indicator species. Their presence or absence in a stream can indicate or healthy or impaired the water is in that location at that moment.

About half the day will be spent in the field and the other half will be back at the conference hotel learning about stream types and identifying water quality indicators.

The animal feeding and nutrient management section will also be divided between time in the classroom setting and time in the field.

Although planning continues, it is expected at this time that participants will learn how to take soil tests and write netrient management plans. Animal waste best management practices will be outlined and some of those practices will be shown firsthand to participants.

Wildlife impacts on water quality are not often considered but can sometimes be significant. Impacts from fish production, migratory bird use, and big game will all be considered. Possible site locations are the Great Salt Lake, Mantua Reservoir, and Blacksmith Fork Canyon.



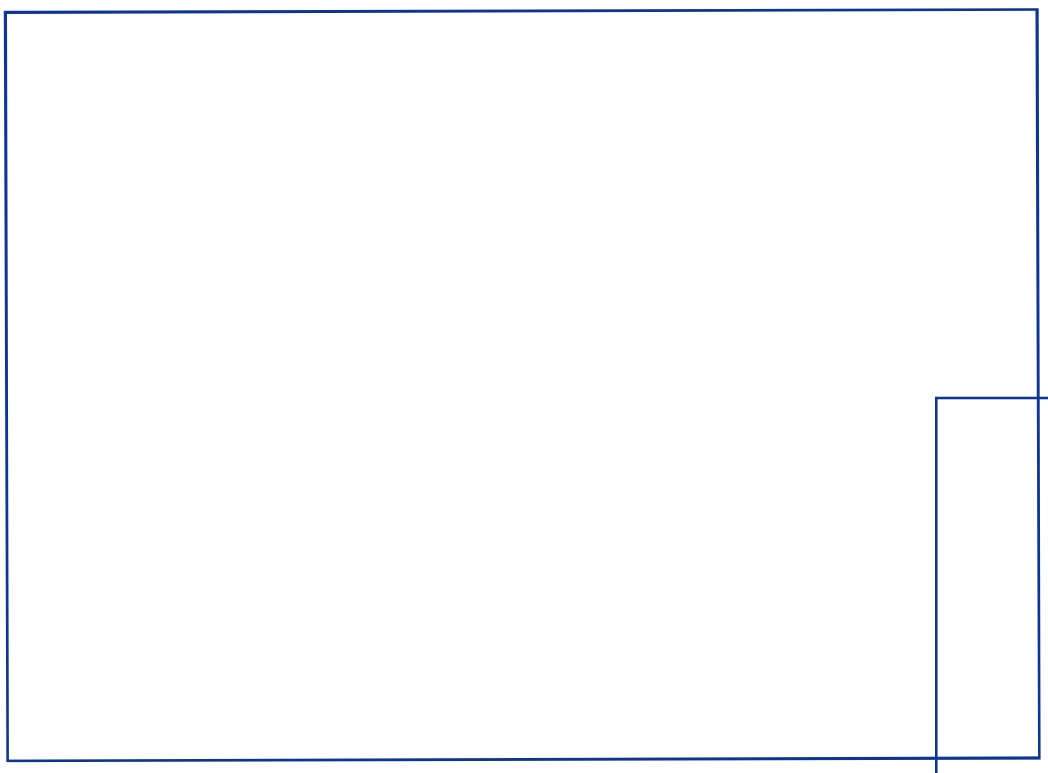
These Wyoming school teachers are looking for macroinvertabrates in a stream near the Teton Mountains in Wyoming. The 1999 NPS conference will look something like this.

Topics Include:

Water Quality Assessment

Animal Feeding and Nutrient Management

Wildlife Impacts to Water Quality



Concentrated animal feeding operations and animal waste management are becoming important topics in water quality. A joint CAFO strategy proposed by USDA and EPA calls for all farms and ranches will animal feeding operations of any size to develop a comprehensize nutrient management plan. Learning how to write such a plan will be one of the elements taught during this segment of training.

Wildlife impacts on water quality and water quality impacts on wildlife will be examined.